	Application No.	Applicant(s)
Notice of Allowability	10/080,690	OHTA, YOSHINORI
	Examiner	Art Unit
	Aung S. Moe	2685
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	ears on the cover sheet with the c (OR REMAINS) CLOSED in this ap or other appropriate communication GHTS. This application is subject t	plication. If not included n will be mailed in due course. <b>THIS</b>
1. $\boxtimes$ This communication is responsive to <u>the communication fill</u>	ed on 7/25/2005.	
2. The allowed claim(s) is/are 1-8 (renumbered as 1-8).		
3. $\boxtimes$ The drawings filed on <u>25 February 2002</u> are accepted by the	ne Examiner.	
<ul> <li>4.  Acknowledgment is made of a claim for foreign priority una)  All b)  Some* c)  None of the: <ol> <li>Certified copies of the priority documents have</li> <li>Certified copies of the priority documents have</li> <li>Copies of the certified copies of the priority documents have</li> </ol> </li> <li>Copies of the certified copies of the priority documents have linternational Bureau (PCT Rule 17.2(a)). </li> <li>* Certified copies not received:</li> </ul>	been received. been received in Application No. <u>0</u>	
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file a reply ENT of this application.	complying with the requirements
5. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EXAMINER es reason(s) why the oath or declara	S AMENDMENT or NOTICE OF ation is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.	
(a) I including changes required by the Notice of Draftspers	- · · · · · · · · · · · · · · · · · · ·	-948) attached
1) hereto or 2) to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the C	Office action of
Identifying indicia such as the application number (see 37 CFR 1, each sheet. Replacement sheet(s) should be labeled as such in the	.84(c)) should be written on the drawi he header according to 37 CFR 1.121(	ngs in the front (not the back) of (d).
7. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I	sit of BIOLOGICAL MATERIAL I FOR THE DEPOSIT OF BIOLOGIC	must be submitted. Note the AL MATERIAL.
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/0	6. ☐ Interview Summary Paper No./Mail Da	<ul> <li>5. Notice of Informal Patent Application (PTO-152)</li> <li>6. Interview Summary (PTO-413),     Paper No./Mail Date</li> <li>7. Examiner's Amendment/Comment</li> </ul>
Paper No./Mail Date <u>see attached</u> 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	· ————————————————————————————————————	Aung S. Moe Primary Examiner

## Election/Restrictions

1. Applicant's election of Species of Fig. 2 and claims 1-4 in the reply filed on 7/25/2005 is acknowledged. However, upon carefully review of this case, it is noted that claims 1-8 are directed to same invention as shown in Fig. 7 of the instant application. In view of this, the restriction requirement as to the encompassed species is hereby withdrawn.

In view of the above noted withdrawal of the restriction requirement, applicant(s) are advised that if any claim(s) depending from or including all the limitations of the allowable claim(s) be presented in a continuation or divisional application, such claims may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

## Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 3, it is noted that claims 1 and 3 (renumbered as claims 1 and 2) are considered allowable over the prior art of record since prior art of record fails to show or fairly suggest an automatic focusing device for a film scanner having a zoom lens as an imaging lens for projecting an image recorded on photo film onto an image sensor, and containing a film type identifier for identifying film type of the photo film; a focus-scan range definer for defining a focus-scan range in accordance with the identified film type; a sampler for sampling pixel signals from the image sensor at different focusing positions within the focus-scan range of the

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imaging lens; a programmable digital band pass filter for producing evaluation signals and the frequency band is modified in cooperation with zooming of the imaging lens; an integrator for obtaining an integration value of the extracted evaluation signals at one focusing position; and a controller for controlling the focusing position of the imaging lens based on the integration values obtained at different focusing positions as substantially described and connected in independent claim 1.

Regarding claim 2 and 4 (renumbered as 3 and 4), it is noted that claims 2 and 4 are considered allowable over the prior art of record since prior art of record fails to show or fairly suggest an automatic focusing device for a film scanner having a zoom lens as an imaging lens for projecting an image recorded on photo film onto an image sensor, the device further including a lens driving mechanism; a lens position detector; a film type identifier for identifying film type of the photo film; a focus-scan range definer for defining a focus-scan range in accordance with the identified film type; a sampler for sampling pixel signals from the image sensor at different focusing positions within the focus-scan range of the imaging lens; programmable digital band pass filter for producing evaluation signals from the pixel signals with adjustable frequency band, and for extracting those evaluation signals within a given frequency band; a data memory storing set values for the frequency band of the band pass filter with reference to the data memory in accordance with the zooming position detected by the lens position detecting means; an integrator for obtaining an integration value; a peak detector for detecting a peak value of the integration values obtained at the different focusing positions; and a controller for controlling the lens driving mechanism to set the imaging lens at a focusing

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position where the peak value is obtained as substantially described and connected in independent claim 2.

Regarding claims 5-8, it is noted that claims 5, 6, 7 and 8 (renumbered as 5-8) are considered allowable over the prior art of record since prior art of record fails to show or fairly suggest an automatic focusing device for a film scanner having a zoom lens, a frame size designator for designating an effective image area on the photo film based on at least one of a user input and information recorded on the photo film; an evaluation area definer for defining an evaluation area on the image sensor in accordance with the designated effective image area; a sampler for sampling pixel signals from the image sensor at different focusing positions of the imaging lens, the sampler further including a film type identifier for identifying film type of the photo film, and a focus-scan range definer for defining a focus-scan range in accordance with the identified film type, wherein the different focusing positions at which pixel signals are sampled are within the focus-scan range; an evaluation signals producer being correlative with spatial frequencies of the effective image area; an integrator; a controller for controlling the focusing position of the imaging lens based on the integration values obtained at the different focusing positions; and a zooming position detector for detecting a position of the zooming lens, wherein the evaluation area definer defines the evaluation area in accordance with the effective imaging area and the position of the zooming lens positions as substantially described and connected in independent claim 5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue Application/Control Number: 10/080,690

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Following prior arts show a film scanning system and the camera system having a

focus control system therein:

JP 04-046471 (Translated)

6,434,339

5,568,273

Page 5

5,486,895

5,852,503

EP 0,180,186

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aung S. Moe Primary Examiner

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A. Moe August 2, 2005